

## **REMARKS**

Applicants appreciate the Office's review of the present application. In response to the Office Action, the cited references have been reviewed, and the rejections and objections made to the claims by the Examiner have been considered. The claims presently on file in the present application are believed to be patentably distinguishable over the cited references, and therefore allowance of these claims is earnestly solicited.

In order to render the claims more clear and definite, and to emphasize the patentable novelty thereof, claims 1, 7, 9, 15-17, 26, 35, and 43-49 have been amended, claims 4 and 12 have been cancelled without prejudice, and new claims 50-52 have been added. Support for any new claims is found in the specification, claims, and drawings as originally filed, and no new matter has been added. Accordingly, all claims presently on file in the subject application are in condition for immediate allowance, and such action is respectfully requested.

### **Rejections**

#### **Rejection Under 35USC Section 101**

Claims 43-46 have been rejected under 35 USC Section 101 as directed to non-statutory subject matter.

In view of this rejection, claims 43-49 have been amended to claim a printing system.

In view of the foregoing, it is submitted that the rejections have been overcome and should be withdrawn.

#### **Rejection Under 35USC Section 102**

Claims 1-20, 23, 25-29, 32, 34-40, 42-45, and 49 have been rejected under 35 USC Section 102(e), as being anticipated by U.S. patent 6,757,073 to Kuroda ("Kuroda"). Applicants respectfully traverse the rejection and request reconsideration based on the amendment to claims

1, 7, 9, 15-17, 26, 35, 43-45, and 49, and features in the other claims which are neither disclosed nor suggested in the cited reference.

As to a rejection under 102(b), "[a]nticipation is established only when a single prior art reference discloses expressly or under the principles of inherence, each and every element of the claimed invention." *RCA Corp. v. Applied Digital Data Systems, Inc.*, (1984, CAFC) 221 U.S.P.Q. 385. The standard for lack of novelty, that is for "anticipation," is one of strict identity. To anticipate a claim, a patent or a single prior art reference must contain all of the essential elements of the particular claims. *Schroeder v. Owens-Corning Fiberglass Corp.*, 514 F.2d 901, 185 U.S.P.Q. 723 (9th Cir. 1975); and *Cool-Fin Elecs. Corp. v. International Elec. Research Corp.*, 491 F.2d 660, 180 U.S.P.Q. 481 (9th Cir. 1974). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Independent claim 1 (amended), and its dependent claims 2-3 and 5-8, are patentably distinguishable over the cited reference because claim 1 emphasizes the novel features of the present invention in which the number of logical pages per print medium page for an N-Up printing mode is automatically selected based on characteristics of at least one feature of the document data that is indicative of visual discernability to the human eye. In this regard, claim 1 recites:

“1. (Currently amended) A computer-implemented method comprising:  
receiving data defining a document having a plurality of logical pages that is to be printed on a printer;  
processing the data to identify one or more characteristics of the data indicative of visual discernability to the human eye of at least one feature of the data; and  
based on the one or more characteristics, automatically selecting a number of logical pages per print medium page for an N-Up printing mode in which to print the document.  
(emphasis added)

The Kuroda reference discloses a data processing apparatus in which the number of

logical pages per print medium page for an N-Up printing mode is automatically selected based on the total number of logical pages in the document being printed. As is described in the Kuroda reference:

“For the present embodiment, the print process of the document data is designated by the application, and also, the N-UP print is designated together with the style of the print and the number of pages  $N$  to be laid out on one page of the output sheet. Further, the automatic N-UP print mode is designated. With these designations, then, the intermediate data write program converts the document data received from the application into the intermediate data. The intermediate data thus converted is provisionally kept as the file of the intermediate data. Thus, the total page number  $I$  of the logical pages is calculated to generate a page information file in which the page information is recorded including the total page number. After that, the page information file is read out by the intermediate data edit program to calculate anew the optimum N-UP page number  $N$ .

Here, when the print mode is N-UP, and also, the automatic N-UP mode is designated, the optimum N-UP page number is assumed to be  $N=1$  if the total page number  $I$  is 1 page or  $N=2$  if the total page number  $I$  is 2 pages or more.

Also, when the 4-UP is designated, the  $N=1$  if the total page number  $I$  is 1 page; the  $N=2$  if the total page number  $I$  is 2 pages; or the  $N=4$  if the total page number  $I$  is 3 pages or more.

Further, when the 8-UP is designated, the  $N=1$  if the total page number  $I$  is 2 pages; or the  $N=4$  if the total page number  $I$  is 3 pages or 4 pages; and the  $N=8$  if the total page number  $I$  is 5 pages or more.

Likewise, with the designated  $N$  as the maximum value, the optimum  $N$  is assumed to be the value that enables the total page number  $I$  to be laid out effectively as the physical pages.”  
(col. 11, line 38 – col. 12, line 2; emphasis added)

Fig. 12 (for single-sided printing) and Fig. 14 (for double-sided printing) of the Kuroda reference illustrate the optimum  $N$  for a particular combination of a designated  $N$  and a total page number  $I$ .

Significantly, the Kuroda reference says nothing about automatically selecting the number of logical pages per print medium page for the N-Up printing mode based on characteristics of at least one feature of the document data that is indicative of visual discernability to the human eye, as recited in claim 1.

The novel features of the present invention are not anticipated by the Kuroda reference in that the essential elements of “processing the data to identify one or more characteristics of the

data indicative of visual discernability to the human eye of at least one feature of the data”, and, “based on the one or more characteristics, automatically selecting a number of logical pages per print medium page for an N-Up printing mode in which to print the document”, are absent from the Kuroda reference because the Kuroda reference selects the number of logical pages per print medium page based on the total number of logical pages in the document being printed.

Therefore, the rejection is improper at least for that reason and should be withdrawn.

Independent claims 9, 35, and 43 (all currently amended) all recite limitations similar to those of claim 1, discussed above.

Claim 9 recites computer-readable media having computer-readable instructions to “process the data to identify one or more characteristics of the data indicative of visual discernability to the human eye of at least one feature of the data” and “based on the one or more characteristics, automatically select a number of logical pages per print medium page for an N-Up printing mode”.

Claim 35 recites an apparatus having computer-readable instructions to “process the data to identify one or more characteristics of the data indicative of visual discernability to the human eye of at least one feature of the data” and “based on the one or more characteristics, automatically select a number of logical pages per print medium page for an N-Up printing mode”.

Claim 43 recites a printing system having an N-Up analysis module configured to “process the data to identify one or more characteristics of the data indicative of visual discernability to the human eye of at least one feature of the data” and “based on the one or more characteristics, automatically select a number of logical pages per print medium page for an N-Up printing mode”.

For similar reasons as explained heretofore with regard to claim 1, the novel features of the present invention are not anticipated by the Kuroda reference in that the essential elements summarized immediately above are absent from the Kuroda reference because the Kuroda

reference selects the number of logical pages per print medium page based on the total number of logical pages in the document being printed. Therefore, the rejection of independent claims 9, 35, and 43, and their corresponding dependent claims 10-11, 13-16, 36-40, 42, 44-45, and 49 is improper at least for these reasons and should be withdrawn.

Independent claim 17 (amended), and its dependent claims 18-20, 23, and 25 are patentably distinguishable over the cited reference because claim 17 emphasizes the novel features of the present invention in which the number of logical pages per print medium page for an N-Up printing mode is automatically selected based on characteristics of at least one feature of the document data that is indicative of visual discernability to the human eye. In this regard, claim 17 recites:

“17. (Currently amended) A computer-implemented method comprising:  
receiving data defining a document having a plurality of logical pages that is to be printed on a printer;  
processing the data to identify one or more characteristics of the data, at least one of the characteristics pertaining to a font that is to appear on a printed document; and  
based on the one or more characteristics, selecting a number of logical pages per print medium page for an N-Up printing mode in which to print the document such that the font is readable by the human eye.” (emphasis added)

As described above with reference to claim 1, the Kuroda reference discloses a data processing apparatus in which the number of logical pages per print medium page for an N-Up printing mode is automatically selected based on the total number of logical pages in the document being printed. (See col. 11, line 38 – col. 12, line 2; Fig. 12; and Fig. 14)

Significantly, the Kuroda reference says nothing about selecting the number of logical pages per print medium page for the N-Up printing mode based on a characteristic pertaining to a font that is to appear on a printed document, as recited in claim 17.

The novel features of the present invention are not anticipated by the Kuroda reference in that the essential elements of “processing the data to identify one or more characteristics of the data, at least one of the characteristics pertaining to a font that is to appear on a printed

document", and, "based on the one or more characteristics, selecting a number of logical pages per print medium page for an N-Up printing mode in which to print the document such that the font is readable by the human eye", are absent from the Kuroda reference because the Kuroda reference selects the number of logical pages per print medium page based on the total number of logical pages in the document being printed. Therefore, the rejection is improper at least for that reason and should be withdrawn.

Independent claim 26 (currently amended) recites limitations similar to those of claim 17, discussed above.

Claim 26 recites computer-readable media having computer-readable instructions to "process the data to identify one or more characteristics of the data, at least one of the characteristics pertaining to a font that is to appear on a printed document" and "based on the one or more characteristics, select a number of logical pages per print medium page for an N-Up printing mode in which to print the document such that the font is readable by the human eye".

For similar reasons as explained heretofore with regard to claim 17, the novel features of the present invention are not anticipated by the Kuroda reference in that the essential elements summarized immediately above are absent from the Kuroda reference because the Kuroda reference selects the number of logical pages per print medium page based on the total number of logical pages in the document being printed. Therefore, the rejection of independent claim 26, and its dependent claims 27-29, 32, and 34, is improper at least for these reasons and should be withdrawn.

#### Rejection Under 35USC Section 103

Dependent claims 21-22 and 30-31 have been rejected under 35 USC Section 103(a), as being unpatentable over U.S. patent 6,757,073 to Kuroda ("Kuroda") in view of the printed publication *Mastering Microsoft Office 97* by Moseley and Boodey. Applicants respectfully traverse the rejection and request reconsideration based on the dependence of these claims on one

of independent claims 17 and 26, whose reasons for allowability over the Kuroda reference have been discussed heretofore and against which the *Mastering Microsoft Office 97* reference has not been cited.

Dependent claims 24, 33, 41, and 48 have been rejected under 35 USC Section 103(a), as being unpatentable over U.S. patent 6,757,073 to Kuroda ("Kuroda") in view of U.S. published patent application 2002/0051205 to Teranishi ("Teranishi"). Applicants respectfully traverse the rejection and request reconsideration based on the dependence of these claims on one of independent claims 17, 26, 35, and 43, whose reasons for allowability over the Kuroda reference have been discussed heretofore and against which the Teranishi reference has not been cited.

Dependent claims 46 and 47 have been rejected under 35 USC Section 103(a), apparently as being unpatentable over U.S. patent 6,757,073 to Kuroda ("Kuroda") in light of the case law of *In re Japikse*, 86 USPQ 70 (CCPA 1950). Applicants respectfully traverse the rejection and request reconsideration based on the dependence of these claims on independent claim 43, whose reasons for allowability over the Kuroda reference have been discussed heretofore and against which the portion of *In re Japikse* referred to by the Office has not been cited and is not applicable.

### **Formalities**

#### **Amendment of the Specification**

Page 7 of the specification has been amended to conform the reference indicator of the disk drive with the drawings, as required by the Office.

**Conclusion**

Attorney for Applicant(s) has carefully reviewed each one of the cited references made of record and not relied upon, and believes that the claims presently on file in the subject application patentably distinguish thereover, either taken alone or in combination with one another.

Therefore, all claims presently on file in the subject application are in condition for immediate allowance, and such action is respectfully requested. If it is felt for any reason that direct communication with Applicant's attorney would serve to advance prosecution of this case to finality, the Examiner is invited to call the undersigned Robert C. Sismilich, Esq. at the below-listed telephone number.

**AUTHORIZATION TO PAY AND PETITION  
FOR THE ACCEPTANCE OF ANY NECESSARY FEES**

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Respectfully submitted,



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